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Power In Your Hands: We Are Dynamic: We Have Programmes: We Have Achievements

CONGRESS POLL PROMISES

"THE purpose of the elections must be to provide the nation with a government at the centre strong enough to safeguard India's independence and its interests in a rapidly changing World, wise enough to preserve the legacy of tolerance and peaceful changes and determined enough to carry forward the recent gains to that with the self-reliant technological strength already gained, the nation can march forward," declares the Election Manifesto of the Congres Party.

It maintains that Congress alone has the necessary dynamism, policy, programme and leadership for keeping up continuity of the country's progress and sustaining its socio-economic evolution in an orderly atmosphere.

The party has issued a 12 point action programme and seeks a fresh mandate from the people.

(1) Uphold the ideals of secularism, protect the interests of the minorities and the right of every community to pursue its faith and way of life.

(2) Preserve and consolidate democracy and put an end to all forms of violence and disorder, so that people can live in peace and harmony.

(3) Fight poverty, ignorance, disease and inequality and build a modern, prosperous, egalitarian and socialist society.

(4) Abolish all kinds of discrimination between one human being and another and end all forms of exploitation.

(5) Develop and modernise agriculture and allied activities, expedite integrated rural development programmes and bring about a total rural regeneration.

(6) Promote the interests of the small and marginal farmers, agricultural Workers, Scheduled Castes and Scheduled Tribes, and backward classes and communities.

(7) Strengthen and diversify the country's industrial base, enlarge the role of the public sector, give scope to the private sector to play its due role within the priorities of the Plan and without bringing about a concentration of economic wealth and power.

(8) Take up a massive programme to expand opportunities for productive employment.

(9) Project the interests of the working class and give them their proper share in management and the fruits of their labour.

(10) Keep prices in check and ensure essential commodities to the people at reasonable prices.

(11) Provide primary education to all children and improve the scope of secondary and higher education and

(12) Expand health and medical facilities and welfare programmes for the people.

In reaffirming its firm commitment to fully implement the 25-point programme, the Congress has given the assurance that there would be no compulsion in regard to family planning, promised to continue its crusade against untouchability and work unremittingly to raise the living standards of the Scheduled Castes and Scheduled Tribes remove economic and social discrimination against women and end the evil of dowry system.

It has also promised to uphold the freedom of the minorities to run their educational and other institutions, prevent discrimination against them in recruitment to services, and provide encouragement for the development of Urdu and the literary pursuits of the minorities in their own languages.

The Congress has reiterated its commitment to land reforms, promised to intensify rural credit facilities, set up a commodity stabilisation corporation to ensure remunerative prices for all principal crops, and maintain an assured supply of fertilizer and improved seeds in the countryside.

It will take parallel steps in the industrial sector to increase production, enlarge workers' participation in management, discourage lay-offs, lock-outs, retrenchments and closures which harm the economy of the nation. It proposes to launch a national housing fund to which

both employers and employees will be required to contribute as part of an expanded social welfare programme. It will continue to increase public investment in the core sectors of power, transport and communications to develop the country's industrial infra-structure.

Among other promises that are made in the manifesto are the assurance to bring science nearer to the people, a sustained literacy drive, and reorganisation of the educational system to help the students face the challenges of the changing times. It has also promised to keep up the drive against corruption in all walks of life.

It has defended the imposition of the Emergency to save the country from what it calls a catastrophe and goes on to uphold the recent Constitutional amendments with the argument that the party was well within its right to remove the obstacles placed by vested interests in the way of socio-economic transformation. The manifesto claims that the Congress has redeemed the promises it made in the last elections to a substantial extent, while asserting that these gains could be put to greater advantage through a self confident, self-reliant, disciplined and dedicated functioning of the government with a renewed mandate from the people.

Releasing the manifesto, Mrs. Indira Gandhi recalled that the Congress won Independence because of the sacrifices of millions of people. "And the Congress consolidated that freedom, gave unity to the people and stability to the country."

She listed among the Congress achievements the tackling and solving of many of the nation's problems and bringing into the mainstream people of some regions who felt alien to the rest of the nation.

She explained that by stability she meant that the ship of State should be on an even keel and charter a course which was known and recognised not only in the country but also by other countries. "It is the only course which provides that kind of stability", she declared, "and it is only with that kind of stability that the nation can go where it is going and that any programme of consequence can be implemented."

Mrs. Gandhi affirmed: "We believe democracy cannot exist without our kind of secularism and that without socialism we

(Contd. on page 7)

THUS SPAKE
THE MAHATMA

It is not given to man to know the whole Truth. His duty lies in living up to the truth as he sees it, and in doing so, to resort to the purest means, i. e., to non-violence.

ASOKA SCENTED BETEL NUT POWDER

Free India

SUNDAY Feb. 13, 1977

CONGRESS CALL

Poverty must go, disparity must diminish and injustice must end.

The Congress has given these new slogans in its election manifesto. Only the slogans are new. The ideas are as old as the Congress. The Congress has been doing everything in its power to make these a reality.

As the manifesto says, the Congress is committed to a purpose. That purpose is to consolidate India's unity, modernise the society without loss of India's personality, develop industry and agriculture with the help of modern science and technology and uplift the masses from archaic and heirarchical systems.

Only the Congress party, with its mass base can honour this commitment. During its 30-years of continuous rule at the centre, its achievements have been tremendous. During this period, the country had to face many challenges at home and from abroad. If all the parties had cooperated, the achievements would have been more striking.

Ordinary people in the country know well who can deliver the goods. The peace prevailing during the last 18 months of emergency has proved that Smt. Indira Gandhi is the only leader, who can unite the nation and direct it along right lines, maintaining stability.

Apart from successive five-year plans, a 25 point programme has also been introduced having the needs of the weaker sections of society in view. There may be official mistakes here and there, but they can be rectified through proper representation.

The manifesto now offers a 12-point programme also for urgent implementation.

'Democracy versus Dictatorship' is a mischievous slogan, especially after the announcement of elections by Smt. Indira Gandhi.

A strong Congress, with a massive support of the electorate, can alone keep the country peaceful and strong.

Election: Position In Tamilnadu

Seeking Adjustment Among Hetrogenous Forces

By D. VENKATESAN

IN the 1971 mid-term Poll, elections to Parliament were safely secured by those parties in the country, including the DMK in Tamil Nadu on the strength of the so called "Indira Wave."

This time, instead of a tidal wave, there seems to be a cyclonic wind sweeping the country. On the one side the Congress speaks of stability and progress, while those opposed to it are making a last call for "saving Democracy". The latest appendage to the votaries of the latter is Mr. Jagjivan Ram's "Congress for Democracy".

EXTRAORDINARY HUE

In this context, the emerging scene in Tamil Nadu wears an extraodinary hue. For the first time, in a major battle for the hustings, three unfathomed forces are pitching their tents for the fray. All the contending Parties are swearing to avoid any cornered fight and, in their anxiety to do this, are looking out for alliances not on the basis of any ideology or principles, but purely for convenience. The ruling Congress Party (TNCC) also falls under this category despite the claim of the Party's Central leaders as well as local office bearers that the Congress has gained considerable popularity with the masses.

The line up as it stands at present indicates that the Janata Party, with the much experienced Congress (O) as a major partner in the alliance, enjoys a better bargaining power with its associates rather than the TNCC, which is still new to this kind of experience notwithstanding the stature it has gained after the merger.

The All-India Anna DMK (AIADMK) and the Tamil Nadu unit of the CPI are still negotiating with the Congress for the division of the 39 Constituencies in the State. In an earlier discussion the CPI has already made it clear that the four Constituencies from which it had returned its four former MPs were non-negotiable either with the AIADMK or the Congress and if any understanding was reached it would be on those basis.

THE IRONY

It is an irony that two parties the TNCC and the Cong (O) having identical political goals should be fighting the elections from the opposite camps and be prepared to seek understanding and adjustments with groups totally differing from them.

The TNCC will defenitely forge an understanding with the AIADMK and the CPI in the hope of winning most of the eats. It is understood that the Congress would bargain for at least 20 seats of which two prestigious Constituencies in Madras—the South and Central—which it is not prepared to concede to the AIADMK.

The former Union Minister and Planning Commission Member, Mr. R. Venkatraman is expected to be fielded for the South Madras seat. The AIADMK makes bold to place Mr. Nanjil K. Manoharan for North Madras.

Although pressure is being brought upon from all sides on Mr. P Ramachandran, President of the Cong (O) to enter with an immediate understanding with the DMK so as to give a straight fight to the Congress—AIADMK CPI alliance, the shrewd shisya of Kamaraj may not oblige because he would not like his Party to go to polls with the stigma that he gave in to something which the late Kamaraj opposed.

Yet the Old Congress will chose to have the minimum number of seats to fight from where it enjoys some confidence and strength and leave the rest to the DMK so that its aim of defeating the Congress-AIADMK alliance will also be served.

Keep Your Pumping Sets In Good Working Order

By AMAR NATH

With the application of science and technology to raise the farm production, pumping sets are becoming quite popular with the progressive farmers everywhere. But the little knowledge and lack of proper attention on the part of the farmers to maintain them results in low efficiency of the pumping sets. Though repairing of the pumping sets is the work of engineers, yet these can be kept in good working order if general day to day precautions are taken.

Selection: Centrifugal pumps are manufactured for different set of conditions e.g. source of water supply and fluctuations in water level in summer and rainy season, the vertical suction lift, the static discharge lift, diameter and discharge of tubewell, depth and thickness of strata being tapped and the type of power unit, electric motor or diesel engine.

Installation: Install the pumping set (Pump and power unit) to make it easily accessible for inspection, maintenance and repair. Provide a cover or construct a small room for its protection against the weather. Keep in mind the seasonal fluctuations of the water.

Pump troubles: Most of the troubles with the centrifugal pumps are due to the leakage in the suction lift or in the foot valve.

Pump fails to start: When the centrifugal pump fails to start or to discharge or pressure drops, then trace the cause of the trouble immediately and take steps to remove it. Gland packing may be too tight; see if the spindle is free. There can also be some defect with the power unit.

Leakage: In case there is air leakage in the suction line; coat the threaded connections with white lead and tighten them. Check the gaskets and,if required, tighten them. Check and replace the foot valve if defective, to avoid water retention in the suction side.

Insufficient water pressure or capacity: Sometimes the pump

(Contd. on page 7)

NUCLEAR SCENE

A Picture of Self Reliant Activity

INDIA has come a long way in atomic energy from the time Apsara was built in 1956, to the 1974 underground nuclear experiment. The mastery of underground nuclear explosion techniques and studies for exploitation of this technology marks one more stride in her efforts for application of nuclear energy for economic development.

The nuclear scene in the country presents a picture of self-reliant activity. The country is generating power from nuclear energy, building atomic power plants and preparing a wide range of radioisotopes and labelled compounds and using them in medicine, agriculture, industry and other areas.

The major objectives of Indian nuclear programme are to generate electrical energy, to utilise radioisotopes for bringing about improvements in industry, medicine, agriculture and other areas of importance to national health and economy, and to use nuclear techniques for exploiting earth resources and for civil construction purpose. This effort has been pursued in the light of the philosophy of self-reliance which has been the cardinal philosophy of India's planners in all spheres of national endeavour.

The Indian nuclear effort had a modest beginning in Bombay some 30 years back. Though the country has a long tradition of fundamental research, organised studies in the nuclear sciences began with the establishment of the Tata Institute of Fundamental Research (TIFR) in Bombay in 1945. From TIFR, the major of work in atomic energy moved to nearby Trombay in 1954, when the Atomic Energy Establishment was set up there as a multi-disciplinary organisation for research and development work in the area. Renamed the Bhabha Atomic Research Centre (BARC) in January 1967, this organisation is the national centre for R & D in nuclear energy. It has four research reactors. Apsara, a 1MW swimming pool type reactor designed and built by Indian scientists. Apsara marks a milestone in the Indian nuclear programme. At the time it was commissioned Apsara was the first reactor in Asia outside the USSR. Apsara was followed by CIRUS, a 40 MW reactor built, with Canadian collaboration, ZERLINA, a zero energy experimental reactor, and PURNIMA, a zero energy-fast reactor also designed and built, like Apsara and ZERLINA, by Trombay scientists. In 1964, another milestone was reached in the country's nuclear programme when a plutonium plant was commissioned at Trombay. Plutonium is a highly radioactive element whose handling requires a sophisticated system run by remote control. The plant was designed and built by Trombay scientists and engineers and when it was commissioned, was among the five or six plants of its kind in the world. Based on the experience gained in building and operating this plant, a larger fuel reprocessing plant has been built at Tarapur to process power reactor spent fuel. Besides the plutonium plant, BARC built for itself a fuel element fabrication plant, a Van de Graaff accelerator, a thorium plant, and a large number of research laboratories and workshops. A 100 MW research reactor is to be added to those facilities in the near future.

CURE FOR CANCER

Over 350 types of radioisotope products and labelled compounds are produced by the BARC, and some of them have been exported. It has developed varied applications for radioisotopes, and a wide range of equipment and facilities related to the application of radioisotopes. Radioisotopes are being used for diagnosis and therapy of cancer and other diseases, for developing new mutants of foodgrains, for extending shelf-life of perishable vegetables and flesh products such as potatoes, onions, fish, meat etc., for inducing sterility in some insect pests, and for disinfection of foodgrains.

During the last 10 years, the production of radioisotopes and their applications have increased considerably. In 1966–67 India was producing isotopes and labelled compounds, and associated equipment and services with a sale value of about Rs. 10 lakhs. Today, the total sale value of radioisotopes, equipment and services is around Rs. 75 lakhs per year.

In January 1974, a plant for radiation sterilisation of medical products was commissioned at Trombay with an initial capacity for sterilising 3,300 cu.m. of medical products and an ultimate capacity of 33,000 cu.m

NUCLEAR DEVICE

The tremendous advance made in atomic energy by the country was dramatically projected by the underground nuclear experiment conducted in Rajasthan in 1974. This successful experiment was the result of concerted effort a dedicated group of scientists, and demonstrated the high quality of resources built up in terms of technological competence and facilities. Investigations at the site will add to the fund of knowledge being gathered for utilising such experiments for constructive purposes.

The High Altitude Research Laboratory at Gulmarg and the Seismic Station at Gauribidanur, near Bangalore are some of the other research facilities available in the nuclear field.

New research facilities such as a Variable Energy Cyclotron (VEC) and a Fast Breeder Test Reactor are also being added to the nuclear R & D programme.

With the work in atomic energy has come the inevitable fallout of skills and technology into other areas: the BARC has to-date developed over 300 products and processes which it is making available to Indian industry. A major transfer of technology made by BARC in recent years is in the area of vacuum technology.

HARNESSING ENERGY

The first atomic power station, the 400 MWe Tarapur Atomic Power Station was built by the Americans and has been operating since October, 1969. This import of a nuclear power plant was done to establish the competitiveness of nuclear power in the country without loss of time, and also to provide training of Indian engineers in the building and operation of nuclear power plants. The second nuclear station in the country, the 440 MWe Rajasthan Atomic Power Station, is being built entirely by the Power Projects Engineering Division of the Department of Atomic Energy. The Station has two PHWR type reactors of Canadian design.

The 450 MWe Madras Atomic Power station at Kalpakkam (about 60 kms south of Madras) as another step forward for Indian nuclear technology. Kalpakkam is being built without foreign collaboration, and with a foreign exchange content of only about 20 per cent. Work has also begun on the fourth nuclear power station in the country, at Narora in Uttar Pradesh.

India is also in the process of building four Heavy Water Plants; Heavy Water being used as a moderator and coolant for PHWR type reactors which are at Rajasthan, Madras and also planned at Narora.

With assistance from BARC, Indian industry is fabricating major nuclear components, such as the reactor vessel (Calandria), steam generators, end-shields, thermal shield plates, fuelling machine heads etc. and most of the components of the conventional part of a nuclear station.

ATOMIC FUELS

Besides the general industry, the nuclear infrastructure under the atomic energy programme consists of (i) the Nuclear Fuel Complex (NFC) at Hyderabad which processes uranium dioxide and fabricates fuel elements for PHWR type reactors as well as special materials needed for the electronics industry (ii) the Electronics Corporation of India Ltd., set up in April 1967 at Hyderabad, which manufactures a wide range of nuclear and non-nuclear electronic equipment, advanced computers, medical electronic equipment and TV sets (iii) the Uranium Corporation of India Ltd., Jaduguda, Bihar which mines and processes uranium ore; and (iv) the Indian Rare Earths Ltd., which extracts thorium and rare earth minerals from the beach sands of the southern coast.

Besides the supporting industrial units, there is the Atomic Fuels Division which is responsible for survey and exploration of uranium, thorium and other

(Contd. on page 7)

Advertisements

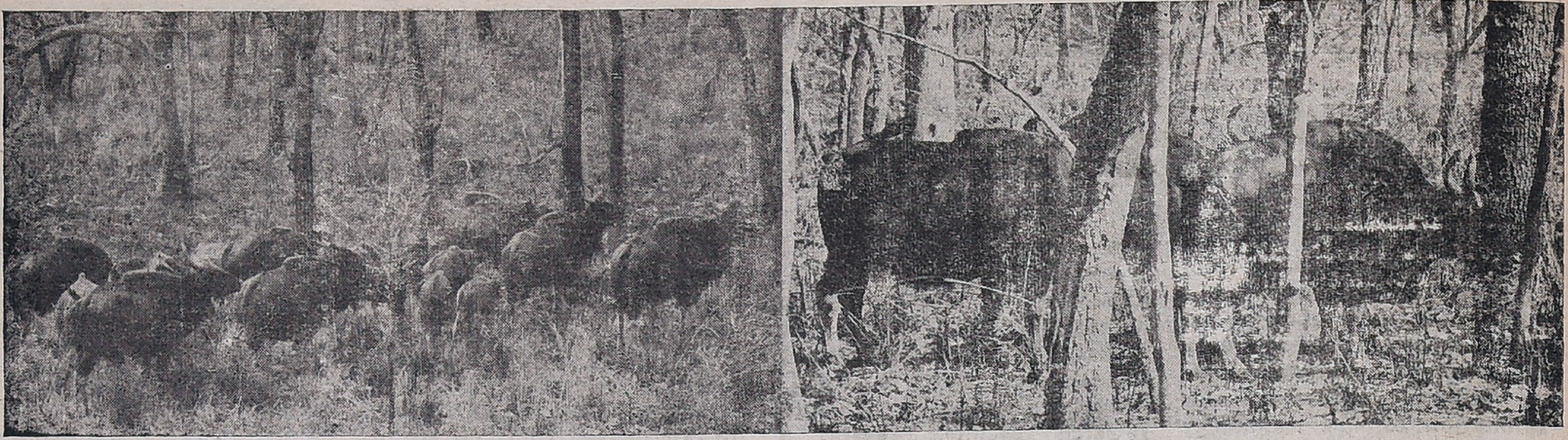
Weser-Kurier, a newspaper published in Bremen (West Germany), recently published the following marriage ad: "A failure, once bankrupt, twice divorced, bald-headed, below average height, on the other side of second youth, seeks a beauty queen with a fortune of one million marks''.

* * *

The following ad is from Isar-Kurier, published in Wolfratshausen (West Germany): "To let in Worfratshausen, eight minutes' walk to the suburban train, old house with a floor space of 140 square metres, may be divided, requires repairs has no stoves or bathrooms. Suitable for students."

Who Arms Them

Wondering where gangsters in Marseilles and Lyons got their guns, the French Judiciary police launched investigations and found that they were being armed by policemen. One of those guardians of the law, Ange Casonova of Marseilles, was detained when transporting two submachine guns in his car. The search in his home yielded several automatic pistols. Interrogations showed that he had a partner, one Raphael Flori, a former policeman and now a bar operator in Lyons. The latter was doing a brisk trade in fireams.



Forests are great wealth. They should be preserved. Destruction of forests must be prevented. Forests keep a natural ecobalance and it should not be disturbed while developing the areas adjoining forests.

The Ecological Balance

AGRICULTURE AND ECOLOGY

By Dr. VIRENDRA KUMAR

Paradoxically 100 million years back the factor of speed became the key note of biological evolution, mammals were speedier and more agile than dinosauers in both physica and mental make up, flowering plants would grow faster than cone-bearing plants. Therefore, when man appeared on the scene though he could perhaps never run fast enough, but his mind could speedily think and devise means, to undo a gazelle in a jiffy.

He was quick to understand the relationship between the seed and plant. Speedily, we believe that man took to the planting of seed and harvesting the yield of this newly acquired technology.

This was, as great naturalist Marston Bates said, the first fatal step towards civilization. It helped man to have leisure, to direct his mind to control his environment. He speedily changed the face of earth. He became in Carl Sauer's phrase an ,Ecological dominant.'

In modern times, we can breed as fast as we can destory. It needs no further elaboration, how speed-faster and faster-dominates the psyche of man today. However we have to reckon with another parallel paradox, that while nature on one hand had set up 'speed' as the primary theme of biological evolution, her own methods of renewal, regeneration and replenishment of earth substance have remained slow.

DEPLETION OF NON-RENEWABLE RESOURCES

Much of the growing concern over the disturbance in ecological balance has arisen because of the facts that mankind has been utilising its renewable and nonrenewable resources very fast. Secondly, the products as well as the by-products generated by the activity of man have become extremely dangerous not only to other forms of life, but also to man himself.

I will restrict myself to briefly discuss how ecological imbalance can affect agriculture and how often, even certain agricultural practices can generate the imbalance.

The ecological imbalance which affects our agriculture is caused primarily by deforestation. Besides there are certain other factors like increased salinity, caused by faulty irrigation practices, excessive use of fertilizers and pesticides etc. which also contribute to this imbalance.

In recent years the increase in demand for timber and fuel wood has led to indiscriminate tree felling. Vast tracts of forest areas have also been cleared for housing and expanding agricultural practices. Consequently forest acreage has diminised very fast. In view of this our national forest policy makers had recommended an increase in forest acreage from the existing 24% to atleast 33 per cent.

SOIL EROSION

It has been increasingly appreciated that denudation of vegetation cover results in creating deserts or desert like desolation in areas, where rainfall is not much. And, in high rainfall areas, it leads to serious soil erosion and floods. In fact many of our ecological imbalances start from deterioration in soil.

Soil is not an inert entity. This vast reservoir of water and and minerals teems with life. The micro-organism sustain higher forms of life in a variety of ways. They fix atmospheric nitrogen and enrich the soil. These may develop symbiotic relationship with the roots of certain plants like the nitrogen fixing bacterial nodules.

In pine trees certain soil fungi get associated with roots and help in the absorption of minerals from soil. Lack of such fungi from soil will seriously hamper the growth of a pine tree. This is an example of delicate relationship which may exist between two very diverse forms of life.

An ecological imbalance which may lead to disappearance of fungus from the soil can undermine efforts to grow pine plantations. Under natural conditions the fertility of the soil is primarily maintained by the serial vegetation cover. The deeply rooted trees absorb minerals from deeper layers in the soil. The falling leaf litter and twigs are the chief natural sources which replenish the soil with nutrient contents. The soil in turn sustains the balanced community of plants and animals.

INBUILT MECHANISM

In an established ecosystem, there are thus inbuilt mechanisms which help in maintaining soil fertility. Through jhooming or shifting cultivation the tribal people utilize this inbuilt mechanism to compensate for not only loss of minerals removed by the crop but also due to erosion.

After the harvest the tribals shift to another area and this abandoned land is quickly colo-

An increase from present 24% to atleast 33% of forest acreage has been recommended by experts our nation.

The large number of trees, shrubs and bushes prevent soil erosion from the h lls.

temperate forest to its original state.

It is not often realized by us that a forest is a highly complex interdependent system of a great diversity of life forms having achieved a perfect harmony with physical environments. Its creation is the function of time to be measured in terms of many human generations. It is beyond our present state of knowledge and capacity to recreate a forest, we can only create plantations.

Therefore, it calls for taking adequate soil conservative steps to protect the cultivated areas on hill slopes from soil erosion and landslides. A good forest cover will ensure availability of water and energy to sustain cultivation in plains as well as maintain ecological balances.

It will be of interest to mention here that recently entire hill community in Garhwal region has participated in digging pits to plant thousands of saplings in Joshimath area. It is an old saying in our country that during his life time a man should plant a tree, have a child and write a book. The message contained in this saying is obvious.

I will now briefly draw your attention to certain apparently innocuous deeds, which severely damage the nature's balance of things. In recent years we exported frogs' legs and disturbed the natural balance by dangerously depleting the frog population. Punishment came soon, our standing paddy crop was destroyed by insect pest. Under normal conditions the insect population was kept under check by frogs.

Similarly, by excessive killing of tigers, our crops were exposed to increased population of herbivores, who after depleting the forest resources moved out to seek food from nearby agriculture areas. Tiger acted as unpaid forest guard, whose fear had often kept the poachers for forest wood at a safe distance. Perhaps it is not a mere coincidence that decline in forests and decline of tiger population went together.

Thus we see that the ecological balance in nature depends upon numerous, often very subtle interactions between one form of life and another which involves an equally dynamic exchanges with the physical environment. This balance can be easily disturbed by any major or minor shift in any one of its interacting components. The solution lies in striking the right balance.

(Courtesy: Akashvani, Delhi)

nized by the aggressive weeds, which within a decade or two gives way to a thick tangle of vegetation, including trees. This leads to replenishment of fertility in due course of time.

Since, it is a slow process, often it may go out of control. Therefore, efforts are being made to persuade the tribals to give up this primitive practice of shifting cultivation

The rich fertility of the soil is restricted to its top layers, where moisture holds the soil particles together. It is the top soil which is most important for our agricultural purposes. Therefore, when we remove the vegetation cover, these top layers become most vulnerable to loss by wind or water erosion.

Therefore on reclaiming land from forest for putting under plough, man has assumed the responsibility of not only preventing the soil loss by erosion, but also help maintain the fertility of soil. As I have pointed out, it was the function of tree cover to keep replenishing the soil for the needed nutrient constituents and keep it intact.

PROPER BALANCING NEEDED

The fertility of the soil under cultivation can deteriorate by poor conservation and other agricultural practices. Excessive irrigation can result in leaching of salt from deeper to upper layers of soil, which would result in increating the prob'ems of high salinity. Excessive use of fertilisers and fungicides could also bring similar imbalances and bring a drastic change in micro bial life in the soil.

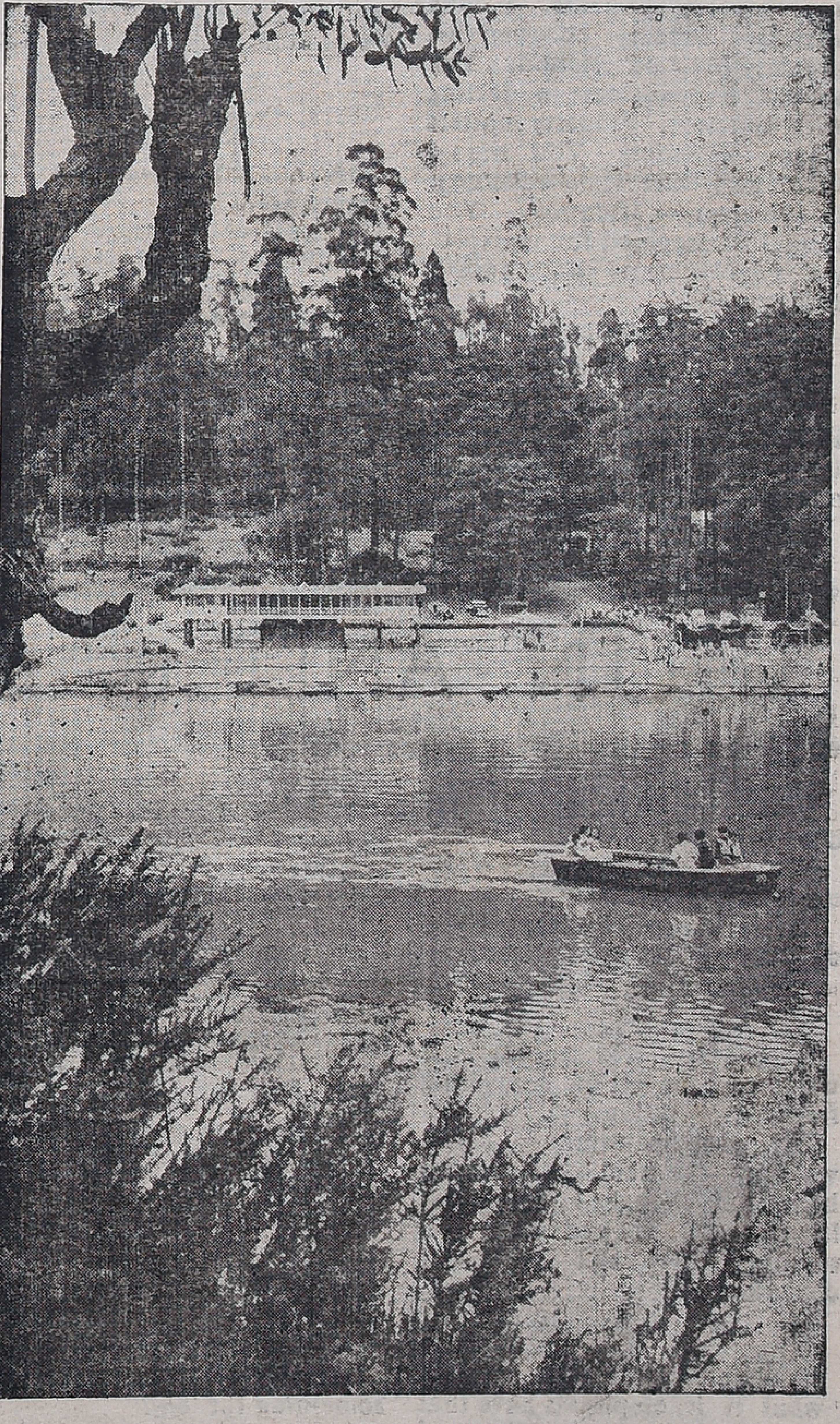
The ecosystems in the Himalaya and other hilly ranges have also been seriously damanged. Its effect has mainly been felt in the plains. Here again we witness the familiar scene of denudation, much of it due to a spurt in deforestation chiefly during the past few decades.

During spring the bare slopes lose winter snow at a faster rate. As a result mountain rivers carry less water in summer, which is the most critical time for Indian agriculture. The hydroelectric generating systems also get badly affected by low water level in the dams during this period.

During rainy season, the bare slopes and the impoverished forests allow the water with heavy load of silt to rush into the mountain river systems. It causes enormous damage and human misery by flooding the thickly populated areas in plains, and destroy crops. The dams get filled with silt, thereby greatly reduce the water holding capacity and the expected functional life.

The devastating Alaknanda floods in 1970 are still fresh in our memory. A cloud burst in Kwari Khal area in Garhwal Kumaon Himalayas released 20" of rain in 24 hours and a flash flood resulted. Usually a good vegetation cover in temperate region has the fantastic capacity to hold 500" of rainfall, like a sponge and release it gradually. It could be a plentiful perenial source of life giving water.

It is, therefore, an urgent need that a legislation is enacted against deforestation in primary watershed areas in higher reaches of the Himalaya and other hilly region in India. Under the prevailing adverse conditions for growth, it would take not less than 500 years to replace a



Lakes like this in the midst of hills and forests make beautiful tourist picnic spots. While developing such spots ecobalance should not be upset.

For The Week 13th, February To 19th, February 1977

Mesha

FAVOURABLE period continues. You should try to utilise this opportunity to improve your prospects. Business will improve. Promotional possibilities are bright. Financial position will be satisfactory. But avoid speculative investments. Property matters should be handled properly to avoid complications. You should consult your family members to solve some of your problems. Favourable days: 16th & 17.

★

Rishaba

MIXED results are indicated. You should wait for some more time to implement your programme. You should be cautious in dealing with strangers. Property matters should be handled properly to avoid complications. Legal complications should be avoided. Business prospects will improve. But avoid speculative investments. Family members will be cooperative. Matters relating to children requires attention. Favourable days: 18th & 19th.

★

Mithuna

YOU should wait for some more time to implement your programme. Financial position will be satisfactory. But avoid speculative investments. Family matters should be handled properly to avoid friction. You should be cautious in dealing with superiors. Property matters require attention. You should take extra care while travelling. Health requires attention. You should be prepared for unexpected developments on 14th & 15th.

★

Kataka

MIXED results are indicated. Financial position will improve. But avoid speculative investments. Family members will be cooperative. Matters relating to children should be handled properly to avoid complications. Partnership matters require attention. Change of place is indicated for some. Avoid friction with associates. Property matters could be finalised. Avoid impulsive actions on 16th & 17.

★

Simha

FAVOURABLE period will continue for some more time. Business prospects will improve. Promotional possibilities are bright. You may be hearing from relatives and friends living in distant places. Financial position will improve. Speculative gains are also indicated. Family members will be cooperative. Matters relating to children could be finalised favourably. Favourable days: 14th & 15th.

★

Kanya

FAVOURABLE period to implement your programme. Business will improve. But avoid speculative investments. Property matters should be handled properly to avoid complications. You may have to undertake a journey shortly. You can expect the cooperation of your family members in solving some of the problems. Favourable days: 16th & 17.

Thula

MIXED results are indicated. Business will improve. Promotional possibilities are bright. Health will be well maintained. Family matters should be handled properly to avoid complications. Property matters require attention. You should be cautious in dealing with strangers. Matters relating to children could be finalised favourably. Financial position will improve. But avoid speculative investments. Favourable days: 18th & 19th.

★

Vrischika

FAVOURABLE period to implement your programme. Financial position will improve. Speculative gains are also indicated. Property matters could be finalised favourably. Health will improve. You will be undertaking a journey shortly. Partnership matters could be finalised, but you should take into consideration of long term results. Change of place is indicated for some. Favourable days: 14th & 15th.

★

Dhanus

MILDLY favourable period. Financial position will improve. Speculative gains are also indicated. Matters relating to children could be finalised favourably. Health requires attention. Avoid travelling unless necessary. Family members will be cooperative. Legal complications are indicated regarding property matters. Avoid friction with superiors. Favourable days: 16th & 17th.

★

Makara

MIXED results are indicated. You will be able to make necessary changes in domestic Sphere. But avoid friction with partners. Financial position will improve. Speculative gains are also indicated. Matters relating to children could be finalised favourably. Business will improve. Promotional possibilities are bright. You may have to undertake a journey shortly. You can expect cooperation from family members to solve some of your problems. Favourable days: 18th & 19th.

★

Kumbha

FAVOURABLE period-You should start preparing now to improve your position. Financial position will improve. Speculative gains are also indicated. Property matters could be finalised. Health will improve. You will be undertaking a journey shortly. Partnership matters could be finalised favourably. Change of place is indicated for some. Favourable days: 16th & 17th.

★

Meena

FAVOURABLE period. Business prospects will improve. Health will be well maintained. Financial position will improve. Speculative gains are also indicated. Family matters require attention. You may have to undertake a short journey. Partnership matters could be finalised favourably. You can expect cooperation from family members. Favourable days; 18th & 19th.

FUN AND LAUGHTER

"An eight-day clock—what does that mean?"

"It goes for eight days without winding madam."

"How long does it go if you do wind it?"

* * *

A patient was telling the nurse how she felt on recovering from her operation.

"It was beautiful as I was waking" she said. "I was so happy. I thought at first I was in Heaven. Then I saw you standing there and I knew I could not be."

* * *

"Johnnie," said the teacher, "what is it elephants have that no other animals have?" And Johnnie replied without hesitation: "Little elephants."

"I have listened carefully to you for a long time, Mr. Davidson," said the judge, in acid tones, "but I am none the wiser."

I hardly expected your lordship to be," replied counsel, politely, "but I thought you might be better informed."

* * *

"Yes, my boy friend takes me to the museum every Saturday."

"Really! What is he studying?"

"Economy."

* * *

Sam: "What's the matter with your feet?"

Rastus: "I got corns."

Sam: "Why don't you do something for 'em?"

Rastus: "Why should I? They never do anything for me! Let 'em suffer."

A customer went the other day into a bookshop.

"I want 'The Letters of Charles Lamb'," he said.

"You'll find the post office on the lefthand side, a little farther down the street, Mr. Lamb," said the obliging assistant.

* * *

SOURCE

The costermonger smiled happily at the thought that his donkey was enjoying a free feed.

"You're a good little girl to be so kind to dumb friend," he said. "But who gave you those carrots?"

"I took them from the back of your barrow," she said simply.

THE TRUTH

Her dearest friend. "You're only young once, darling—weren't you?"

* * *

Standing on a soapbox, an agitator was holding fort.

"Take what you want in this life." He shouted. "If your family is hungry, raid a shop and take food for them. If your wife hasn't a warm coat, pick out the best fur coat you can see and ignore the consequences."

At the end of his speech he climbed down from his soapbox. The next words the crowd heard from him were: "Where's the so-and-so who's taken my bycycle?"

* * *

"I just love a good browse at the library."

"High browse or low browse?"

* * *

"I say, what's good for biting finger-nails?"

"Sharp teeth."

From page 1

Congress Poll...

cannot have harmony and peace."

She said the manifesto was an important document not because it was a matter of slogans but because it was a matter of stating what the party was committed to, what it had stood for and what it was standing for to-day. It was a document that gave some glimpse of what the party had been able to achieve and hinted at some of the programmes the party would implement.

"In these momentous years, many of our promises—in fact I would say all of our promises—have been implemented—not completely but work has commenced seriously and in depth on all of them."

Noting that the manifesto could not obviously deal with every problem or every programme and could give only a bird's eye view of them. Mrs. Gandhi said :

"We have always been a party of the people and because a large majority of the Indian people are still deprived, we are their party. The vast majority of the Indian people live in rural areas. So we are a party of the peasants, the landless and others who live in rural areas. But we are fully conscious of the role played by the middle classes in the attainment of Independence and in implementation of our programmes for development. We know that during a period of economic crisis the burden had fallen on the poor but considerably on the middle classes with fixed incomes. So we have given special importance to them."

Mrs. Gandhi said "castelsm seem, to be rearing its head again", warning that this was so because the Opposition was becoming more casteistic.

"We do not-believe in the caste system. And because it exists and because they have suffered physical and other handicaps, we have had before and after Independence special programmes for Harijans, Scheduled Tribes, backward classes and minorities.

"It has been our endeavour in the past to help these people help themselves. We do not want them to become dependent on anybody but to stand on their own feet. Only then can they be strengthened and strengthen the nation. Anybody will realise that much has been done in the last few years. In a country with a population of 60 millions we cannot solve in a few years the problems of all sections of the people. All that we can do is to open up opportunities, open doors closed to them. This we have endeavoured to do with success."

Mrs. Gandhi said land reforms had not been completed but had been implemented much faster in the last couple of years than before. Equally fast had been the implementation of the programme for allotment of sites to the houseless.

While there had been criticism of the resettlement programme in Delhi, visitors from the U.K. and the socialist countries who had seen it had said it was something they should emulate.

Mrs. Gandhi countered the Opposition bid to project the Congress as a one-person party. Because of the tremendous attack on her, she said the party colleagues felt called upon to defend her thus putting the focus on her. But "I regard myself as the foremost sevika (servant) of the people."

"I have said it when I was Congress President and I say now, that I am not in the Congress for a position but because I feel deeply that it is the only party which has played a role in the making of modern India", she said.

The situation she said, had been precipitated in a way that democracy went off the rails but the moment the Government thought it possible to hold the elections, "we immediately took the decision, not counting either the costs or the heads."

She recalled how, on the eve of the Emergency "many people and parties were so full of hatred that they could not see or think straight." The importance and necessity of the Emergency as also the significant gains made during this period were recognised by many countries. When there were no curbs on democracy or the press, there was a major attack on the democratic insulations but the press did not regard it as an attack on democracy. She wanted intellectuals to realise that "we cannot play with the future of 600 million people of a country as ancient vast and varied as India."

"We have come out of darkness but not stabilised ourselves," she said, stressing the dangers of the move for destabilisation. She spoke of the Government's desire to make education relevant to the young people, but she wanted that it should not create a new elite class.

In the field of foreign policy, she said it had been their endeavour to assert India's independence. This was not intended to be a threat to anyone but to enable the country to resist pressures and take decisions which were in its interest. This approach led India to work closely with other developing and non-aligned countries.

—

"So long, old body. I'm off to the wilds of Africa."

"Drop us a lion now and then."

From page 2

Keep Your Pumping....

fails to develop sufficient and prescribed pressure or capacity due to clogging of the suction line and foot valve. To ensure proper supply remove the debris or any other foreign material in the suction line, strainer or foot valve. Check if the suction lift is too high and also if the discharge head is higher than anticipated. A worn out or partially plugged up impeller also reduces the capacity of the pump. This may also be due to too low speed of the pump. Foot valve too small and or suction opening not submerged deep enough can also be the causes.

Too much power: Keep the speed of the pump at the prescribed rate. The head should not be lower than the rated head of the pump failing which it will pump too much water. Some mechanical defect like bent shaft, a too light stuffing box, misalignment of the pump and the driving unit should be checked.

Excessive leakage at stuffing box: The pump sometimes leak excessively at the stuffing box. This may be due to the use of worn out packing material, incorrectly inserted or not upto the prescribed standard. The worn out shaft of the pump can also result in heavy leakage.

Noisy pumps: The pump's noise can be due to its suction lift being too high. A bent shaft, improper alignment between the pump and the driving unit, broken or worn out bearings... also produce noise during the operations of the pump. Loose nuts and bolts, touching of the impeller with the casipe somewhere and also cavitation effect due to bad design.

Pump suddenly stops delivering water: Leaky suction line, lower level of water in the well, suction lift too high and air of gases in water sometime stop the pumps delivering water.

GENERAL INSTRUCTIONS

While the manufacturers usually give special directions for care of the pumping sets here are a few general instructions for their maintenance:

* Clean the stuffing boxes carefully before the gland packing is introduced.
* To set the glands with the pump in operation, tighten them until there is no leakage.
* Tolerate slight leakage of water to prevent burning of the packing and cutting of the shaft.
* Always rotate pump motor by hand before starting to check the excessive friction in the stuffing box and change the packing occasionally.
* Clean the bearings thoroughly before starting the pump and remove the dirt and foreign material accumulated during shipment and installation.
* Watch the bearings carefully during the first hour of operation for over-heating.
* Use the recommended lubricant oil for oil-lubricated ball bearings. Never use graphite.

Every year do the following maintenance:

* Inspect the unit thoroughly.
* Remove and clean bearings and also clean the bearing housing. Examine the bearings for scratches and wear. Coat with neutral oil or grease immediately after inspection.
* Remove the packing and examine the wear in shaft sleave or shaft.
* Disconnect coupling halves and check alignment.
* Check and flush the drain.

If you keep your pumping set in good working order it will definitely go a long way in timely support and in fulfilling your ambition for getting high yields from your crops.

From page 3

minerals of interest to the atomic energy programme.

To meet the requirements of the various R & D Establishments and industrial units and projects, the BARC has a variety of training programmes ranging from specialised training in the use of nuclear equipment and techniques in different applications, to training of high-level personnel to man nuclear projects. In a special Training School, the BARC inducts every year around 200 graduate engineers and scientists selected from all over India.

A Nuclear Training Centre at Kota run by the Power Projects Engineering Division trains personnel for nuclear power station operation and maintenance.

India's nuclear effort has been unique in the world. No developing country has evolved and built a frontier science and technology such as nuclear energy, from the laboratory stage to the industrial stage largely on its own. It must be reemphasised here that almost all the research facilities and most of the initial fuel, electronics and other requirements were developed, designed and made in the country. The development and growth of atomic energy is in a way the development and growth of a unique scientific culture,

FILM REVIEW

"Aparadhi"

Prathap Chitra's "Aparadhi" (Malayalam) is a mystery film that you come across rarely in a language production. It has a well conceived investigation story. The director has handled the subject well with thorough understanding and kept the mystery till the end.

Jayachandran marriers Suseela, a young pious girl, just to inherit the properties of his father. He is already having an affair with a Christian girl, a teacher, Lissy, who bears him two children—a girl and a boy. His father dies leaving a will according to which all the estate affairs should be done only with the concurrence of Suseela. Jayachandran is frustrated at this.

One fine morning Suseela is found missing. Later, after a search, her body is found in a well. People of the area suspect of foul play in her death. A police officer, Rajan, is put in charge of the investigation. After a risky and labourious investigation he finds out the truth.

Madhu as the frustrated and hot tempered Jayan has given a masterly performance. Prem Nazir as the investigating police officer has done a neat job. Sheila as Suseela is impressive. Jayabharathi as the teacher Lissy is good. K.P. Ummer, Bahadur, Nagesh and Nandlitha Bose are in the supporting roles.

P.N. Sundaram has directed the film for producer S. Pavamani.

V.T. Nandakumar has written the screenplay and dialogue for the original story by Joseph mayne.

The music by Salil Choudhary is fine and goes with the theme.

With sweet and flattering words M. K. Muthu is trying to lure Chandrakala in the film "Ellam Avale".

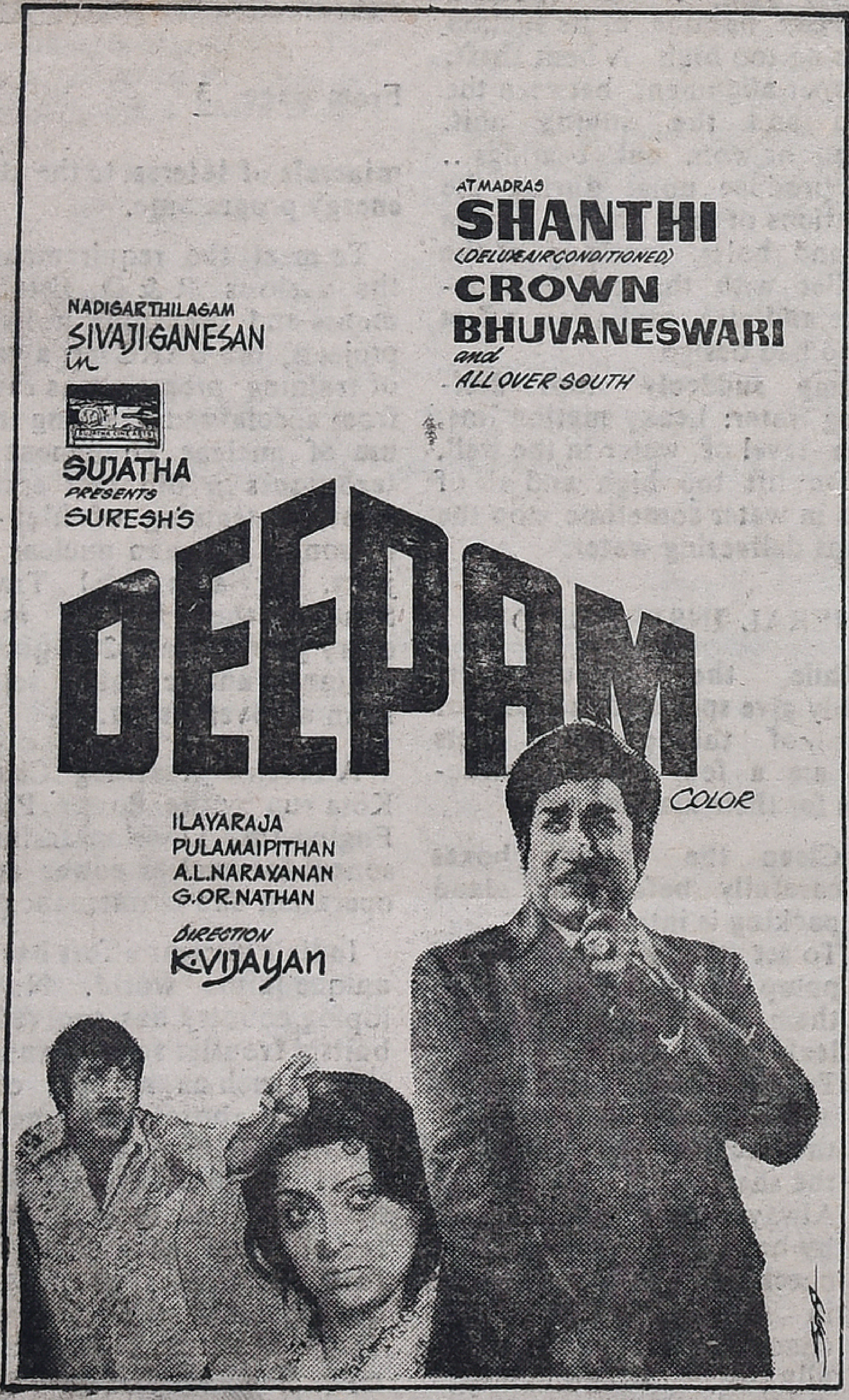
FILM NEWS

Navarathinam To Be Released On Feb. 27

C.N.V. Movies' colour film "Navarathinam" starring M.G. Ramachandran is slated for release in the city and all over the South on February 27.

M.G.R. is cast opposite nine heroines—Latha, Subha, Zarinawahab, Sripriya, Jayachitra, Y. Vijaya, Jaya, Varalakshmi and Kumari Padmini—in this film directed by A.P. Nagarajan who has also written the story and dialogue. P.S. Veerappa, S. Varalakshmi, K. Kannan, Thengai Srinivasan, and C.K. Saraswathi are also in the picture.

Shanmugam is the cameraman and Kunnakkudi Vaithiyanathan is in charge of music. It is produced by C.N. Venkatasamy.



Will it lift me up? Jayadevi in Manian's "Vazha Ninaithal Vazhalam."

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